

ELECTRICAL ENGINEERING CURRICULUM CHECKLIST

August 2009

Name: _____ Date: _____ Approval: _____

Note: All courses have an ELEN designator unless otherwise specified.

1. First & Second Year Program Requirements - Technical (up to 43.5 pts.)

(for details, see http://www.engineering.columbia.edu/bulletin)

Table with 4 columns: COURSE, GRADE, COURSE, GRADE. Rows include MATH V1101 Calculus I, MATH V1201 Calculus III, PHYS C1401, CHEM C1403, ENGI E1102 Gateway Lab, and APMA E2101 or {MATH E1210 and (APMA E3101 or MATH V2010)}.

2. Core Required EE Courses & Labs (37.5 pts.)

Table with 4 columns: COURSE, GRADE, COURSE, GRADE. Rows include E3801/E3084 Signals & Systems / Lab, E3201/E3081 Circuit Analysis / Lab, E3106 Solid State, E3043 Sol. State, Mwave, & F.Optics Lab, IEOR E3658 Probability, and COMS E313x Data Structures.

3. Capstone Design Course (3pts.)

One of: ELEN E3390 Electronic Circuit Design Lab, ELEN E4332 VLSI Design Lab, EECS E4340 Computer Hardware Design, CSEE W4840 Embedded System Design (or ELEN E3998 Projects in Electrical Engineering with special arrangements & approval). Must be taken near end of program and include a capstone project.

COURSE: _____ Approval (if necessary): _____

4. Depth Technical Electives (6 pts.)

Two courses from a single one of the following four areas, not including courses used for #1-3 above.

- a. Photonics, Solid State Devices, and Electromagnetics
E4301, E4401, E4405, E4411, E4420, E4501, E4503, E4944, E4488.
b. Circuits and Electronics
E4215, E4312, E4314, E4321, EECS E4340 (if not used for capstone), E4332 (if not used for capstone)

- c. Signals & Systems
E4810, E4815, E4830, E4896, EEME E3601, EEME E4601
d. Communications & Networking
E3701 (if not used for core), CSEE W4119 (if not used for core), E4702, E4703, COMS W4180

COURSE 1: _____

COURSE 2: _____

5. Breadth Technical Electives (6 pts.)

Two 3000+ level engineering courses clearly outside the depth area selected above. Eligible courses are as follows:

- EE Dept. listed courses (except E3000, E3488, E3900, E4900, EEJR E4901, and other courses used for #1-5, or those with significant overlap). Note: E3998/4998 projects used here must be outside depth area.
• CS Dept. listed courses (except for COMS W313X, COMS W3203, COMS W3101, COMS W4400, and COMS E4405 and other courses used for #1-5, or those with significant overlap).
• ELEN E3488, ELEN E4193, APPH E4100, APPH 4110, APPH E4112 if not using depth area a.
• Engineering courses from any other engineering departments may be acceptable, as long as they do not overlap with other courses used for #1-5. Please get advisor approval in advance.

COURSE 1: _____

COURSE 2: _____

6. Additional Technical Electives (6 pts., or 3 pts. if MATH E1210 & APMA E3101 are taken instead of APMA E2101)

Eligible courses include any 3000+ level engineering, math or science courses that do not overlap with other courses used for #1-6. Note: students who do not take or receive transfer credit for ELEN E1201 need at least one course here to be engineering. Please get advisor approval in advance.

COURSE 1: _____

COURSE 2 (if needed): _____

7. Non-Technical Course Requirement (27 pts.)

(administered by Advising Center, details in bulletin at http://www.engineering.columbia.edu)

8. General Requirements (Total ≥128 pts., ≥ 60 pts. at Columbia, 2 pts. Phys. Ed., GPA ≥ 2.0)